

City of Las Vegas

PURCHASING & CONTRACTS DIVISION

400 STEWART AVENUE

LAS VEGAS, NV 89101

(702) 229-6231 (702) 384-9964 FAX

ADDENDUM #1

DATE: April 21, 2006

Project Title: Annual Contract for Digester Cleaning

Bid #: 060238-LD

PWP#: N/A

NOTICE TO BIDDERS

The following additions, deletions and/or changes shall be made and incorporated into the referenced bid document.

- 1.1 REFERENCE: Bid Opening Date: April 26, 2006**
- DELETE: All References**
- REPLACE WITH: April 27, 2006**
- 1.2 REFERENCE: Bid Submittal Form, Pages 1, 2 and 3**
- DELETE: Bid Submittal Forms in their entirety**
- REPLACE WITH: Attached Revised Bid Submittal Form, Pages 1, 2, 3 and Attachment 1, Pricing Assumptions**
- 1.3 REFERENCE: Special Conditions**
- ADD: Paragraph 17, Pricing**

17. Pricing

A. The City expects a Bidder to be able to project and control the cost of labor, equipment, materials, and overheads for these services for the base and option years of performance. The City recognizes, however, that there are two elements of cost over which the Successful Bidder will not have control; namely, the cost of fuel and tipping fees (cost associated with the dumping of hazardous material at the landfill). In light of the volatility of these two elements of costs, the City will permit a price adjustment for these costs, subject to the limitations set forth below.

B. The prices set forth for Bid Items 1 and 2 are firm and not subject to adjustment. All costs, except for fuel and tipping fees, are firm for Bid Items 3 through 8.

C. The Successful Bidder must submit a request for price adjustment at least forty-five (45) days before the expiration of the current performance year. All adjustments are prospective, and will be applied to the upcoming option year of performance. Only one adjustment per year will be permitted, and an adjustment will not be considered if the total amount of the adjustment (for fuel and tipping fee combined) is less than two percent (2%) of the amount for the Total Option Year.

D. In order to be considered eligible for a price adjustment, a Bidder must provide all the information set forth in Attachment 1, "Pricing Assumptions", and submit the Attachment as part of the bid. Failure to submit the Attachment or failure to sign the Attachment may be grounds for rejection of a bid, at the discretion of the City.

The City will not be bound, at the time of price adjustment, by the rates, amounts, or percentages set forth in Attachment 1, if the rates, amounts, and/or percentages are unbalanced, or otherwise deemed unreasonable as compared to those submitted by other Bidders or by any other standard of reasonableness.

E. The City reserves the right to use the U.S. Department of Energy's published Retail Gasoline and On-Highway Diesel Fuel Prices (applicable to the Las Vegas area) as a basis for adjustment, with the day of bid opening being established as a baseline. The Successful Bidder is responsible for providing all documentation reasonably required to verify a request for price adjustment. All price adjustment requests may be subject to audit in accordance with General Condition No. 12, "Right to Review and Audit".

F. The City may request a price adjustment in accordance with Paragraph C., above, should prices fall and an adjustment would be more than two percent (2%) of the amount for the Total Option Year.

G. Failure to agree upon a price adjustment will be resolved under the provisions of Instruction to Bidder No. 13, "Disputes".

H. The City reserves the right to reject a bid as non-responsive, if the prices are materially unbalanced between the base year and any option year, or between option years.

- 1.4 REFERENCE: TECHNICAL SPECIFICATIONS**
- DELETE: SECTION 01010, SUMMARY OF WORK**
- REPLACE WITH: REVISED SECTION 01010, SUMMARY OF WORK**
- 1.5 REFERENCE: TECHNICAL SPECIFICATIONS**
- DELETE: SECTION 02051, DIGESTER CLEANING**
- REPLACE WITH: REVISED SECTION 02051, DIGESTER CLEANING**

The following questions were received from a prospective bidder and the answers are being provided for all bidders to consider when preparing their bids.

- Question: What was the total gallons moved during the last digester cleaning project?
Answer: 789,313 gallons (6 digesters)
- Question: What was the total tonnage of solids disposed during the last digester cleaning project?
Answer: 1,250 tons
- Question: What method of dewatering did the last cleaning contractor use? Centrifuge or Belt Press
Answer: Centrifuge
- Question: What polymer does the city use to flocculate prior to centrifuging?
Answer: Emulsion
- Question: What is the typical polymer dose (Active # per dry ton)
Answer: 15 to 19 lbs/dry ton
- Question: What is the average cake solids produced by the city's centrifuge?
Answer: 26% +or- 2%
- Question: Who does the city use to haul centrifuge cake to the landfill?
Answer: Republic Services

All other terms, conditions, specifications, and drawings remain unchanged.

END OF ADDENDUM #1

REVISED

BID SUBMITTAL FORM

BID NUMBER: 060238-LD

The Bidder, in compliance with the Invitation To Bid for furnishing: Annual Contract for Digester Cleaning, having examined the Invitation To Bid, and being familiar with all of the terms, conditions, and specifications, hereby offers to perform in accordance with the Invitation To Bid and this Bid Submittal Form.

The Bidder is responsible to ascertain the number of Addenda issued and hereby acknowledges receipt of the following addenda:

Addendum No. _____	Initial _____	Addendum No. _____	Initial _____
Addendum No. _____	Initial _____	Addendum No. _____	Initial _____
Addendum No. _____	Initial _____	Addendum No. _____	Initial _____

The undersigned hereby designates the following address as the office to which notice should be delivered or mailed.

Name of Bidder: _____

Address: _____

Signature: _____ **Date:** _____

Name Typed or Printed: _____

Phone: _____ **Fax No.:** _____

E-mail Address: _____

CLV Business License Number: _____

FOR INFORMATIONAL PURPOSES ONLY

Is this firm a Minority, Women or Disabled Veteran Business Enterprise?

☐ NO ☐ YES. If Yes, please specify: ☐ MBE ☐ WBE ☐ DVBE.

Has this firm been certified as a Minority, Women or Disabled Veterans Business Enterprise by any Governmental Agency? ☐ NO ☐ YES. If Yes, please specify:

Government Agency: _____

Date of Certification: _____

REVISED

BID SUBMITTAL FORM

060238-LD

DIGESTER CLEANING, WPCF

Item No.	Description	Qty.	Unit of Measure	Unit Cost	Extended Cost
1.	Mobilization & Demolition, all preparatory services and clean up operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies, chemical, and incidentals to the project site.	1	Job		\$_____
2.	Includes all services described in the Contract documents to clean digesters, 9,10,11 & 12 and 2 thickeners completely and ready for use, including all labor, materials, overhead, profit, applicable taxes, fees and insurance in accordance with the Contract Documents	543,124	Gallons	\$_____	\$_____
BASE YEAR TOTAL					\$_____

OPTION YEAR 1

Item No.	Description	Qty.	Unit of Measure	Unit Cost	Extended Cost
3.	Mobilization & Demolition, all preparatory services and clean up operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies, chemical, and incidentals to the project site.	1	Job		\$_____
4.	Includes all services described in the Contract documents to clean digesters, 7 & 8 and 2 thickeners completely and ready for use, including all labor, materials, overhead, profit, applicable taxes, fees and insurance in accordance with the Contract Documents	389,700	Gallons		\$_____
TOTAL OPTION YEAR 1					\$_____

REVISED

OPTION YEAR 2

Item No.	Description	Qty.	Unit of Measure	Unit Cost	Extended Cost
5.	Mobilization & Demolition, all preparatory services and clean up operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies, chemical, and incidentals to the project site.	1	Job		\$_____
6.	Includes all services described in the Contract documents to clean digesters, 1, 2, & 3 and 1 thickener completely and ready for use, including all labor, materials, overhead, profit, applicable taxes, fees and insurance in accordance with the Contract Documents	578,850	Gallons		\$_____
TOTAL OPTION YEAR 2					\$_____

OPTION YEAR 3

Item No.	Description	Qty.	Unit of Measure	Unit Cost	Extended Cost
7.	Mobilization & Demolition, all preparatory services and clean up operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies, chemical, and incidentals to the project site.	1	Job		\$_____
8.	Includes all services described in the Contract documents to clean digesters, 4, 5, & 6 and 2 thickeners completely and ready for use, including all labor, materials, overhead, profit, applicable taxes, fees and insurance in accordance with the Contract Documents	581,700	Gallons		\$_____
TOTAL OPTION YEAR 3					\$_____

TOTAL BID AMOUNT \$_____

ATTACHMENT 1
PRICE ASSUMPTIONS

Option Year 1

<u>Item</u>	<u>Unit Price</u>	<u>Quantity</u>	<u>Unit</u>	<u>Total Cost</u>
Diesel Fuel	\$_____	_____	Gallons	_____
Gasoline	\$_____	_____	Gallons	_____
Tipping Fee	\$_____	_____	Tons	_____

Option Year 2

<u>Item</u>	<u>Unit Price</u>	<u>Quantity</u>	<u>Unit</u>	<u>Total Cost</u>
Diesel Fuel	\$_____	_____	Gallons	_____
Gasoline	\$_____	_____	Gallons	_____
Tipping Fee	\$_____	_____	Tons	_____

Option Year 3

<u>Item</u>	<u>Unit Price</u>	<u>Quantity</u>	<u>Unit</u>	<u>Total Cost</u>
Diesel Fuel	\$_____	_____	Gallons	_____
Gasoline	\$_____	_____	Gallons	_____
Tipping Fee	\$_____	_____	Tons	_____

(Signature/Date)

(Name/Title)

(Company Name)

REVISED SECTION 01010
SUMMARY OF WORK

PART 1 -GENERAL

1.01 SERVICES COVERED BY CONTRACT

- A. The Services under this Contract include but are not limited to the following:
 - 1. Drain and Clean up to four (4) digester units and two (2) thickeners per year completely of sludge, liquid, grit, scale, hair, etc.
 - 2. Process liquid side stream to City's standards and return to plant as specified in spec section 02051 – 3.04.
- B. Furnish all materials, equipment, supplies, labor and supervision; provide all equipment and tools; obtain and pay for all permit applications.
- C. Successful Bidder shall coordinate with various Contractors on site.
- D. It is the intent of this contract that Work proceed in accordance with the specifications and in the most expeditious manner possible.

1.02 CONTRACTS

- A. Perform the Work under a single fixed price contract.

1.03 WORK BY OTHERS

- A. Other Contractors:

Work being done by various contractors concurrent with digester cleaning:

Contract 28A: 2005 Facility Improvements.

Contract 31: Security / Landscaping Improvements.

Contract 32: WPCF Site Security.

1.04 WORK SEQUENCE

- A. Perform Services in stages to allow for City's continuous occupancy and for uninterrupted treatment of wastewater and sludge dewatering and disposal during digester cleaning. Coordinate digester cleaning schedule and operations with the City.
- B. All work requiring changes to existing systems or City's action must be identified on Successful Bidder's digester cleaning schedule, to be submitted five (5) working days after Notice of Award:
 - 1. Schedule each outage with City:
 - a. Electrical work requiring power plant outages shall be accomplished on Tuesday or Wednesday or while the associated facility is not operating, unless otherwise scheduled by City.
 - b. Electrical work requiring outages to be scheduled with City 72 hours in advance.
 - c. Coordinate with other Contractors to do work simultaneously. City will schedule outages.
 - d. Plant site power outages must be limited to 2 HRS, no more than 8 HRS in a month.
 - 2. It is essential to the operation of the Water Pollution Control Facility that there be no interruption in the flow of wastewater.
- C. Some digester cleaning may have to be done at times other than regular working hours in order not to interfere with treatment plant operations.

- D. Any pipeline work and other construction tying into existing lines and structures requires 72 HR advance notice to City's rep.
- E. Any work requiring shutdown of the existing fire water, potable water or non-potable water systems shall be schedule with City's rep.
- F. Connections to Existing Processes: Successful Bidder to complete work up to point of connection notify City's rep 72 HRS in advance of further Work. City to remove existing system from service, Successful Bidder to make connection and City to return system to operating condition. Once City removes system from service, Successful Bidder to work continuously until connection is complete and City places system back in service. The Successful Bidder may be required to plug uncompleted work if Successful Bidder fails to complete the work as scheduled and if, in the opinion of the City, the uncompleted work is impacting treatment processes.
- G. The Successful Bidder must very carefully coordinate proposed work with other Successful Bidders, the City's rep and plant personnel before effecting unit shutdowns and under no circumstances is the Successful Bidder to be permitted to cease work at the end of a normal working day if his actions have caused a cessation of any plant operating process. If the latter factor is involved, Successful Bidder's personnel will remain on site to effect necessary repairs.
- H. Any existing plant equipment, facilities, and appurtenances such as water lines, gas lines, electrical cables, sludge lines, sludge beds, structures, vehicles, etc., which are damaged by the Successful Bidder during digester cleaning, even though inadvertently, will be repaired immediately by Successful Bidder at his own expense.
- I. Sequence of Work:
 - 1. Digester #9 through #12 Complex:
 - a. *Work includes cleaning two (2) digesters and one (1) thickener at a time with complete removal of sludge, liquid, grit, scale, etc. **At least one thickener shall be fully operational at all times.** City shall determine which digesters and thickener shall remain in service and which ones shall be cleaned.*
 - b. Sequence of Work for the digesters and thickeners for the option years will be determined at time of renew.

1.05 SUCCESSFUL BIDDER'S USE OF PREMISES

- A. Successful Bidder shall limit his use of the premises for Work and storage, to allow for City occupancy.
- B. Coordinate use of premises under direction of City's Technical Representative.
- C. Assume full responsibility for the protection and safekeeping of product under this Contract, stored on the site.
- D. Move any stored products, under Successful Bidder's control, which interfere with operations of the City.
- E. Obtain and pay for the use of additional storage or work areas needed for operations.
- F. Successful Bidder may use those areas indicated on the drawings for storage, staging, and such additional areas as City may designate.

1.06 MAINTENANCE OF TRAFFIC

- A. Perform services to interfere as little as possible with travel within plant, whether vehicular or pedestrian.
- B. Provide barricades, lights and other safety equipment around potentially hazardous areas.

1.07 CITY OCCUPANCY

- A. City will occupy the site during the entire period of performance for the conduct of his normal operations. Cooperate with City in all construction operations to minimize conflict, and to facilitate City usage.

1.08 REGULATORY REQUIREMENTS

- A. Comply with all federal, state and local laws, regulations, codes, and ordinances applicable to the Work.
- B. References in the Contract Documents to local codes shall mean the appropriate code having jurisdiction including the following:
 - 1. Uniform Building Code.
 - 2. Uniform Mechanical Code.
 - 3. Uniform Plumbing Code.
 - 4. National Electrical Code.
 - 5. Uniform Fire Code.
- C. Other standards and codes which apply to the Work are designated in the specifications.

1.09 AIR QUALITY - PERMITS

- A. The Successful Bidder may be required to obtain permits to perform required services and/or operating permits for sources of air pollution.
- B. Information concerning these permits may be obtained from:

The Air Quality Section
Nevada Division of Environmental Protection
123 West Nye Lane
Capitol Complex
Carson City, Nevada 89710
(702) 687-5065

- C. Certificates and permits are required for sources such as, but not limited to:
 - 1. Fuel burning equipment.
 - 2. Gasoline and petroleum distillate storage containers.
 - 3. Land disturbing activities.
 - 4. Processing equipment (sand, gravel, concrete batch plant, etc.).
 - 5. Sludge incinerators.
 - 6. Odors.

1.10 EMERGENCIES

- A. In any emergency affecting the safety of persons or property, the Successful Bidder shall act, at his discretion, to prevent threatened damage, injury or loss. Any additional compensation or extension of time claimed by the Successful Bidder on account of emergency work shall be determined as provided for in the Special Conditions.

1.11 HOURS OF EMPLOYMENT

The Successful Bidder is advised that the normal working hours for City of Las Vegas employees will be 7:00 a.m. to 3:30 p.m., Mondays through Fridays, excluding holidays. The Successful Bidder shall pay for the overtime of all employees of the City who are requested by the Successful Bidder to perform inspection or testing, or who as a result of the Successful Bidder's operation, are required to perform inspections or testing beyond the normal hours of the established working day listed above. The Successful Bidder will be billed at the base overtime rate, including fringe benefits and equipment costs. Failure on the part of the Successful Bidder to reimburse the City for the overtime costs as described in this Section will result in retention monies being held until such time as full reimbursement is made.

1.14 ADDITIONAL ROLE OF CITY'S TECHNICAL REPRESENTATIVE AS AN OBSERVER OF SAFETY DEFICIENCIES

From time to time, the City's Safety Officer will make safety reviews of the Project, including the Successful Bidder's Work. Reviews will consist of visual observation of the Project site for identification of safety hazards. In general, the nature of safety hazards identified will be consistent with OSHA guidelines. The City's Technical Representative will issue notices of deficiencies for identified safety hazards to the Successful Bidder. Such deficiencies in safety shall have the same meaning as deficiencies in the Work, and the contract requirements for correction of deficient work shall apply equally to correction of deficiencies in safety. The City shall have the option to withhold payment for items of the Work that is associated with the identified and uncorrected safety hazard. The City will not accept a reduction in cost in lieu of correction of a safety deficiency. If the Safety Officer identifies a safety hazard that, in the opinion of the City, is of imminent risk to life or of risk to cause injury, the City will immediately notify the person at risk, and then shall endeavor to promptly notify the Successful Bidder and other business entities at the Project site, of the imminent safety hazard. City shall not have control over or responsibility for Successful Bidder's means, methods, or safety precautions, and shall not have authority to stop Work.

1.15 SUCCESSFUL BIDDER'S FURTHER RESPONSIBILITIES FOR SAFETY

Successful Bidder shall provide access to the Work, and shall cooperate with the City and City's Safety Officer, with regard to the City's or City's Safety Officer's observations of the Work for the purposes of identifying safety hazards. **Successful Bidder shall provide a copy of the Successful Bidder's Safety Program for Safety Officer approval.** Successful Bidder agrees to receive notices of safety deficiencies, as issued by the City and City's Safety Officer. Successful Bidder agrees to correct safety deficiencies in the same manner as for corrections of defective work, except that Successful Bidder shall immediately correct, or mitigate a safety hazard, that is an imminent risk to life or of risk to cause injury. The Successful Bidder shall be solely responsible for correcting identified safety deficiencies, and that neither the City nor City's Safety Officer accept any responsibility or liability for failing to identify safety hazards, or for the failure of the Successful Bidder to correct a safety deficiency, whether of imminent risk or not. Neither City nor City's Safety Officer shall be responsible for, nor accept liability for failure to identify hidden, buried, or covered safety hazards, or those safety hazards that cannot be detected by a general visual observation.

Notwithstanding the above described duties of the City and City's Safety Officer, the Successful Bidder shall have sole responsibility for the safety of the Successful Bidder's operations, including the Successful Bidder's means, methods, and procedures and shall indemnify, defend and hold harmless, City and City's Safety Officer from any claims or damages, including claims brought by employees of Successful Bidder or its Subcontractors from any claims or damages, including claims brought by employees of Successful Bidder or its Subcontractor Bidders, in any way arising out of the Work.

PART 2 - DATA RELIED UPON BY CITY'S TECHNICAL REPRESENTATIVE IN THE PREPARATION OF DRAWINGS AND SPECIFICATIONS

2.01 REPORTS AND RECORD DRAWINGS

A. Drawings of physical conditions in or relating to existing surface or sub-surface structures which are at or contiguous to the site of the work.

Date			Number
1956	Headman, Ferguson & Carollo, Consulting City's reps	Sewage Treatment Plant	45
1956	Headman, Ferguson & Carollo, Consulting City's reps	Outfall Sewer	22
1960	John a. Carollo, Consulting	Sewage Treatment Plant	15
1964	John A. Carollo, Consulting	Sahara Avenue Interceptor	20
1965	John A. Carollo, Consulting	Wastewater Treatment Plant	109
1970	John A. Carollo, Consulting	Wastewater Treatment Plant Repairs	19
1980	Culp/Wesner/Culp Consulting City's reps	Contract 1 - Sludge Drying and Loading Facilities	7
1980	Culp/Wesner/Culp Consulting City's reps	Contract 5 - Modification of Secondary Settling Basins, Digesters, Laboratory, and Chlorination Facilities	40
1981	Culp/Wesner/Culp Consulting City's reps	Contract 7 - Northwest Sludge Beds	7
1981	John M. Tettemer & Assoc.	Contract 6 - Floodproofing Facilities	31
1981	Culp/Wesner/Culp Consulting City's reps	Contract 8 - Irrigation Bypass and Digester #1 Renovation	12
1981	Culp/Wesner/Culp Consulting City's reps	Contract 9 - Influent Sewer	8
1983	Culp/Wesner/Culp Consulting City's reps	Irrigation Water Flowmetering	3
1983	Culp/Wesner/Culp Consulting City's reps	Polymer System for Sludge Thickening	4
1985	Culp/Wesner/Culp Consulting City's reps	Digester Gas Improvements	28
1986-1987	CWC-HDR, Inc.	Odor Control and Related Facilities, Contracts 1 and 2	15
1988	CWC-HDR, Inc.	Secondary Clarifier Renovation Plant No. 2	0
1988	CWC-HDR, Inc.	Secondary Clarifier Renovation Plant No. 2	0
1988	CWC-HDR, Inc.	Bar Screen Facility and Renovation of Plant No. 1 Grit Basins	22
1988	CWC-HDR, Inc.	Main Plant Expansion (Plants 3 and 4)	165
1989	HDR, Inc.	Sludge Dewatering Facility	71
1988	CWC-HDR, Inc.	Chlorine Feed Facility	37
1990	CWC-HDR, Inc.	Maintenance and Storage Facilities	57
1989	CWC-HDR, Inc.	Effluent Channel	15
1989	CWC-HDR, Inc.	Chemical Building Modifications	12
1989	CWC-HDR, Inc.	Operations Building	30
1990	CWC-HDR, Inc.	Site Improvements	9
1990	CWC-HDR, Inc.	Concrete Rehab - Phase I	18
1989	CWC-HDR, Inc.	Utilities Rehab - Phase II	16

1991	HDR, Inc.	(C-12) Effluent Dechlorination	68
1991	HDR, Inc.	(C-13) Soil Surcharge	17
1991	HDR, Inc.	(C-14) Laboratory	140
1991	HDR, Inc.	(C-15) Digester Facilities	114
1992	HDR, Inc.	(C-16) Effluent Filtration	293

Date			Number
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1992	HDR, Inc.	(C-17) Nitrification Facilities	350
1992	HDR, Inc.	(C-18) Paving Rehabilitation	20
1997	HDR, Inc.	(C-17A) Nitrification	107
1998	HDR, Inc.	Boiler Facility Improvements	18
1998	HDR, Inc.	(C-19) Demolition/Flood Control	43
1998	HDR, Inc.	(C-20) Odor Control	75
1998	HDR, Inc.	(C-20A) 1998 Plant Improvements	42
1998	HDR, Inc.	(C-20B) Trickling Filter Covers	17
1999	HDR, Inc.	(C-21) Mechanical Dewatering	
1999	HDR, Inc.	(C-22) Headworks	
1999	HDR, Inc.	(C-23) Biological Nutrient Removal (BNR)	
2000	HDR, Inc.	(C-24) Filtration/Chlorine Contact	
2000	HDR, Inc.	(C-29) Chlorination/Dechlorination	

- B. Copies of these reports and drawings that are not included with the Bidding Documents may be examined at the offices of the City, the Water Pollution Control Facility during regular business hours.
- C. These reports and drawings are not part of the Contract, but the factual data contained therein upon which the Successful Bidder is entitled to rely and as identified and established above are incorporated therein by reference.

END OF SECTION

REVISED SECTION 02051

DIGESTER CLEANING

PART 1- GENERAL

1.01 DESCRIPTION

A. Scope: The work under this Contract includes but is not limited to the following:

1. The scope of work for this project is to provide pumping, screening, dewatering, ancillary equipment and necessary personnel to pump, screen, dewater, and convey sludge to awaiting trucks from the digesters and from sludge thickeners. *The Successful Bidder shall provide the hauling trucks and dispose of the sludge waste at the local landfill and pay all tipping fees associated with the waste disposal.*
2. Digesters and Thickeners shall be cleaned completely of sludge, liquid, grit, scale, any other solids and contaminants in the digesters, including mixers, baffles, columns, etc. and dispose of the removed materials offsite DAILY in accordance with local codes and ordinances.
3. The City shall drain *two (2) digesters and one (1) thickener at a time* for the Successful Bidder. City shall coordinate a start date with Successful Bidder based on Successful Bidder equipment availability and the City's current plant operations. **One thickener shall always remain in service at all times.** All digesters and thickeners that will be cleaned will be put back in service by the City.

B. Related Work Elsewhere

1. Summary of Work: Section 01010
2. Work Schedule: Section 01310
3. Work Facilities and Temporary Controls: Section 01500

1.02 QUALITY ASSURANCE

- A. Successful Bidder's Qualification: Successful Bidder shall be fully experienced and properly qualified in cleaning digesters, and that it is properly licensed, equipped, organized and financed to perform such work.
- B. Provide evidence of previous experience by submitting a list of at least three Digester Cleaning Contracts, including names and phone numbers of key contacts, upon request from City.

1.03 SUBMITTALS

- A. Permit and notices as per local requirements, prior to commencement of work: See Section 01010 – Summary of Work
- B. Permit for transportation and disposal of all waste, debris and sludge, prior to commencement of work.
- C. Work schedule, five (5) working days after Notice of Award.
- D. Safety plan, five (5) working days after Notice of Award.

1.04 JOB CONDITIONS

A. Protection

1. Erect barriers, fences, guardrails, enclosures, chutes, and shoring to protect personnel, structures, and utilities.
2. Combustible digester gas conditions exist at and adjacent to the sludge pump rooms, digesters, sludge heaters, etc. - Provide monitoring devices, safety alarms, emergency equipment, ventilation and any other safety equipment requirements to ensure absolutely safe working conditions.
3. No smoking, open flame etc., is permitted on the plant site

B. Maintaining Traffic

1. Ensure minimum interference with roads, streets, driveways, sidewalks, and adjacent facilities

C. City's Responsibilities

1. Coordinate with Successful Bidder in placing digesters and thickeners in and out of service.

PART 2- EQUIPMENT AND PRODUCTS

2.01 RECOMMENDED MINIMUM EQUIPMENT REQUIREMENTS

One (1) Horizontal Decanter Centrifuge with Controls
One (1) Centrifugal Slurry Feed Pump
One (1) Polymer Injection Pump
One (1) Centrifugal Centrate Discharge Pump
One (1) Polymer Makedown System
One (1) Static In-Line Mixers
One (1) Agitated Screening Tank
One (1) Centrate Tank
One (1) 6-inch High Volume Digester Pumping System
One (1) 3-inch Magnetic Flowmeter
One (1) 2-inch Magnetic Flowmeter
One (1) Moisture Analyzer
One (1) Horizontal Conveyor
One (1) Stacking Conveyor
500-feet 6-inch pipe
One (1) Full Equipped Tool Crib
Safety Equipment

2.02 PRODUCTS

Polymer for solids separation

PART 3- EXECUTION

3.01 INSPECTION

- A. Verify that digester to be cleaned is not in use and can be taken out of service.
- B. Do not commence work until conditions are acceptable to the City's representative.
- C. Thoroughly inspect and check for digester gas prior to execution of the contract work.

3.02 PREPARATION

- A. Arrange for digester cleaning a minimum of 4 weeks in advance with the supervisor of plant operations and the City's representative.
- B. *City shall place two (2) digesters and one (1) thickener out of service at a time. Once those particular digesters and thickener have been cleaned the City shall place them back in service immediately. A period of thirty (30) days shall be allowed for Operations to place them back in service. Once Operations has determined that the digesters and thickener are fully operational, the City will then place the remaining digesters and thickener out of service and notify Successful Bidder to commence cleaning. Each digester and thickener must be completely cleaned of solids and liquids before placing back in service.*
- C. Provide any necessary temporary piping, wiring, ventilation, equipment, etc.
- D. Successful Bidder shall not cause any defects to the existing protective lining system (Linabond / T-lock) or any other protective coatings inside each digester.

3.03 DIGESTER CLEANING PROCEDURE

- A. The Successful Bidder shall clean Digesters and Thickeners completely of sludge, liquid, grit, scale, any other solids and contaminants on all surfaces. All materials removed from the digesters, any byproducts or chemicals necessary to perform the work shall be disposed of offsite DAILY in accordance with local codes and ordinances.
- B. City will coordinate a start time with Successful Bidder based on Successful Bidder's equipment availability and the City's current plant process operation. City will remove the access hatches on top of the digesters prior to Successful Bidder commencing digester cleaning work.
- C. *City shall take two (2) digesters and one (1) thickener out of service at a time.*
- D. *City shall notify Successful Bidder that the two (2) digesters and one (1) thickener are ready for cleaning.*
- E. *Successful Bidder shall notify City when the two (2) digesters and one (1) thickener are ready to be put back in service.*
- F. *City shall place the two (2) digesters and one (1) thickener that were cleaned back in service.*
- G. *A period of thirty (30) days shall be allowed before the next two (2) digesters and one (1) thickener are taken out of service by the City. This 30 day period allows Operations to fully recover the digester sludge process in the recently cleaned digesters and thickener.*

- H. *The remaining two (2) digesters and one (1) thickener shall be taken out of service by the City.*
- I. *City shall notify Successful Bidder that the two (2) remaining digesters and one (1) thickener are ready for cleaning.*
- J. *Successful Bidder shall notify City when the two (2) remaining digesters and one (1) thickener are ready to be put back in service.*
- K. The Successful Bidder shall test for gas, explosion potential and monitor throughout the contract work and treat each digester as a confined space entry.
- L. Successful Bidder shall provide ventilation and any odor mitigation, as required by the City, continually throughout the contract work.

3.04 FACILITIES

- A. Plant effluent water may be used to aid in cleaning.
 - 1. Successful Bidder shall provide all pumps, wiring, and pipe etc., required.
 - 2. Successful Bidder shall coordinate with the City.
- B. Digester dewatering liquid sidestream may be recycled through the treatment plant providing it does not interfere with operations of the City and providing it meets the following quality standards:
 - 1. Max 200-250 ppm solids
 - 2. Max 150-ppm TBOD
 - 3. Max 300-ppm COD
- C. Successful Bidder may be required to discontinue recycling digester dewatering liquid sidestream through the treatment plant if, in the opinion of the City, the dewatering liquid sidestream is adversely impacting the treatment process.
- D. City will pay all laboratory and field costs associated with dewatering liquid sidestream testing. Successful Bidder shall coordinate with plant laboratory personnel and provide access to work.

3.05 QUANTITIES

- A. The quantities indicated in the bid proposal are approximate quantities and are intended to illustrate scope of the work. The Successful Bidder shall be responsible for verifying the exact quantities involved.
- B. Prior to commencing the work on each digester, the quantity of waste to be removed from each digester must be mutually agreed to by both the Successful Bidder and City.

END OF SECTION